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October 16, 1996

Secretary to the Commission
Federal Communications Commission
1919 M Street, N.W.
Washington, DC 20554

Re: ET Docket 93-62

Dear Sir/Madam:

This is to notify you that I received in yesterday's mail a copy of the COMMENTS OF THE NATIONAL ASSOCIATION OF BROADCASTERS ON PETITIONS FOR RECONSIDERATION. As my COMMENTS made in response to the COMMENTS of Ameritech Mobile Communications, Inc. are also pertinent to the COMMENTS of the National Association of Broadcasters (NAB), I shall not respond separately to the COMMENTS of the NAB.

I have calculated that—because October 6th fell on a Sunday—October 7th was the deadline for the FCC to receive COMMENTS on the Petitions for Reconsideration that were filed; I calculate that this gives me until October 17th to respond with my COMMENTS so as to ensure that they are included in the file on Docket 93-62.

I am sending my COMMENTS herewith—the original and 13 copies—by EXPRESS MAIL to ensure their receipt in your office by October 17th.

It may not be necessary to do so, but I am enclosing a CERTIFICATE OF SERVICE showing to whom I am sending copies of my COMMENTS.

Sincerely,

Marjorie Lundquist

Marjorie Lundquist, Ph.D., C.I.H.
Bioelectromagnetic Hygienist

Enc.: Certificate of Service

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October 11, 1996

Secretary to the Commission
Federal Communications Commission
1919 M Street, N.W.
Washington, DC 20554

Re: ET Docket 93-62

Dear Sir/Madam:

My friend in the Washington area now tells me that no formal opposition to my Petition for Reconsideration was filed with the FCC—but *comments* were filed!

Today I received, from the Law Offices of Blooston, Mordkofsky, Jackson & Dickens, a copy of COMMENTS OF AMERITECH MOBILE COMMUNICATIONS, INC. ON PETITIONS FOR RECONSIDERATION which bore a postmark of October 8, 1996, and which had been sent by ordinary first-class mail.

I should like to reply to these comments. I believe the Docket is open for that purpose until October 16, 1996. My comments are enclosed.

As I have not personally inspected the file on this Docket in the FCC office, I cannot be sure what is on file there. At present, I have received only the above-mentioned document (accompanied by a CERTIFICATE OF SERVICE). Therefore, I respectfully request that the Commission take no official notice of any opposition to, or of any comments other than those of Ameritech Mobile Communications, Inc. upon, my Petition for Reconsideration in the matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation.

Sincerely,

Marjorie Lundquist

Marjorie Lundquist, Ph.D., C.I.H.
Bioelectromagnetic Hygienist

Enclosure: My comments in response to those of Ameritech Mobile Communications, Inc.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:	)	
Guidelines for Evaluating the Environmental	)	ET Docket No. 93-62
Effects of Radiofrequency Radiation	)	

COMMENTS OF MARJORIE LUNDQUIST, Ph.D., C.I.H.
IN RESPONSE TO
COMMENTS OF AMERITECH MOBILE COMMUNICATIONS, INC.
ON PETITIONS FOR RECONSIDERATION

Having myself once worked for a firm in the industrial sector, I recognize that many of the comments of Ameritech Mobile Communications, Inc., are valid. Industry does indeed need a standard to follow that will be valid for a long time to come. Radio waves do indeed cross political boundaries without regard to any legal jurisdiction established by man. This fact does indeed justify, in principle, the establishment of a single authority to set standards to protect the health of people all across the country.

Nevertheless, I cannot agree entirely with everything that Ameritech Mobile Communications, Inc. has said in its COMMENTS. One point of difference is this: how ought the FCC to proceed when the facts about the hazard to health posed by the radiofrequency radiation in question—and the non-radiated electromagnetic fields that exist in the vicinity of every transmitter—are in dispute? In practice, this boils down to the question: what ought to be the default assumption?

When there is no reason to believe that a hazard exists, the default assumption typically is that *no* hazard exists. When there begin to arise reasons to think that a hazard *does* exist, after all, people typically begin to question the default assumption. As evidence of a hazard

accumulates, individual human beings mentally "flip" to the opposite default assumption: that a hazard *does* exist. The point at which an individual "flips" to the opposite default assumption varies from one individual to another; when a large enough number of people have "flipped", we say that public opinion has shifted.

How do people behave under the two default assumptions?

When a person or an organization believes that no hazard exists, the behavior exhibited is disregard of the evidence of hazard. Plans are not changed in light of the evidence of hazard. Sometimes those who urge consideration of the evidence of hazard are ridiculed. Often resort is made to the power structure to "steamroller" the opposition who are usually saying, "Slow down! Let's take time to consider what this new evidence might mean!" And always there is the demand: "***Prove*** that a hazard exists!" directed toward those who have begun to doubt the *no hazard* default assumption. In today's world, there is also a demand for "scientific data" that have been "thoroughly tested", or other scientific evidence of hazard.

When a person or an organization becomes convinced that a hazard *does* exist, the natural reaction is to try to avoid the hazard. Behavior is modified and plans are changed. A residential property may not be purchased, or a particular job may not be taken. And, in one form or another, there is made the demand: "***Prove*** that your proposed facility/operation is not going to be hazardous!" Under conditions of uncertainty as to whether a hazard exists, permits or approvals tend to be denied. This behavioral pattern is regarded as elementary prudence.

Which default assumption should the FCC make, when it is establishing its regulations

and evaluating evidence? The controversy exists over health hazards that are nonthermal in character. Should the FCC assume that *no* nonthermal hazards to health exist, and demand proof of such a hazard before addressing it with regulations? Or should the FCC assume that nonthermal hazards to health *do* exist and insist upon strong evidence of safety before establishing regulations for wireless communications companies?

We know what the FCC did. It was predictable, given the language and legislative history of the Telecommunications Act of 1996 and the way in which U.S. government agencies typically function.

But because the FCC is an agency of the U.S. government, this raises another generic question: what is the role of government?

Governments are instituted by men to promote the general welfare by undertaking those tasks that are more effectively done by society collectively than by individuals acting alone. Governments are created by people—in the USA, by people who vote—to act on behalf of those people, and for their benefit.

The *Four Horsemen of the Apocalypse* are War, Famine, Pestilence and Death. Governments exist, in large part, to protect people from these horrors. Governments doing this strive to maintain peace, and defend against attack; to provide adequate, healthful food and water that is safe to drink; to prevent those diseases that can be prevented, except possibly those that are intentionally self-inflicted; and to prevent unnecessary deaths.

Does the Telecommunications Act of 1996 demonstrate that the U.S. Congress adhered to this mission? Most definitely not! Has the FCC adhered to this mission in establishing

the environmental regulations it issued, as required by this Act, early in August of this year? Three Petitions for Reconsideration were filed by people representing the public interest, who thought not!

While the establishment of a single authority to set standards to protect the health of all the people in the country is sound in theory, it presupposes that the agency of government which will set the standards is competent to do so, and that the standards actually set will be genuinely protective. The FCC possesses no expertise with respect to the public health, and for this reason was a questionable choice as the agency to establish such a standard. The primary problem, though, is that existing standards for radio-frequency (RF) radiation are not adequate to protect the public health!

If no one knows how to do a proper job of protecting the public health, it is hardly surprising that the task is not done well! Under these circumstances, to proceed with the widespread introduction of a new technology is madness, unless there is a national emergency which requires it! Such a national emergency existed with respect to radar in World War II. The USA rushed the technology into place, and only later worried about hazards to health from it.

What is the national emergency that requires the entire USA to be blanketed with wireless transmission towers as rapidly as possible? The people of the USA perceive no such emergency. They would prefer to establish the safety of the technology first—much as the U.S. Food and Drug Administration requires evidence of the safety of new drugs before it approves them for general use—before this technology is introduced throughout the country on the massive scale planned. This would appear to be simple prudence.

Yet the Telecommunications Act of 1996 mandates this madness! A look at the ***Congressional Record*** for February 1, 1996, shows that in neither house of Congress were the legislators given a chance to read the bill before voting on it! Clearly, the Congress betrayed its mission to protect the health and welfare of the American people!

This is why the people want to be able to regulate the wireless communications industry at the local government level. The federal government has betrayed them by acting against their best interests!

This is why I cannot agree with the combined industry-and-federal-government posture of "Ram it down their throats and give them no opportunity to resist!" which is embodied in the Telecommunications Act of 1996. Precisely because governments do, as in this instance, occasionally betray the trust placed in them by the people, multiple levels of government are needed, so as to provide multiple lines of defense. If the federal government had carried out the task of protecting the health of people properly, there would be little resistance at the local level, and industry would have had a fairly uniform regulatory climate across the whole country, without having had to forcibly legislate it!

The FCC has probably done as good a job as could be expected under the circumstances, without breaking new ground. But breaking new ground is precisely what is needed here—a task that the FCC seems not to be prepared to undertake.

The fundamental problem is that, if the public is to be protected against nonthermal hazards to health from RF radiation, completely new standards must be developed, because such standards do not currently exist anywhere as established guidelines. I believe this task can

be accomplished. But the FCC is understandably unwilling to do this.

What are needed, in order to meet the demands placed upon the FCC by the Telecommunications Act of 1996, are principles of sufficient generality that they will not require any serious modification as new information becomes available. Yet these principles must be of sufficient specificity that they can serve as a basis for enforceable regulation. And they must protect against all known hazards to health.

I have developed four such principles which I believe meet the industry criteria. They provide the guidance that industry needs, and they also provide a basis for regulation. I do not present them here because of the time constraints for submission of this document to the FCC.

But I am prepared to present them at a public hearing, if the FCC will hold such a hearing, as I requested in my Petition for Reconsideration. I notice that Ameritech Mobile Communications, Inc. has not expressed any objection to such a hearing in its COMMENTS. In the absence of objections by parties opposed, I reiterate my request that the FCC plan to hold a public hearing on the matter of safe environmental regulation of the health hazards associated with RF radiation and the non-radiated fields that surround RF transmitters, and make the testimony given at this public hearing a part of this Docket.

At least 30 days advance notice of such a public hearing should be given, to give parties time to prepare their testimony; 45 or 60 days would probably be even better.

I now wish to point out to the FCC that there are agencies of the federal government that possess information which could be pertinent to this issue—but these agencies have kept quiet

and not volunteered the information they possess. I think it would be appropriate if the FCC were to make a specific request of these agencies for the information they possess.

In 1952, the U.S. embassy in Moscow, Russia, was moved to a newly renovated apartment building. Shortly thereafter, a routine radiation check turned up unexpected readings. The presence of a microwave signal apparently beamed at the embassy from a nearby building was detected in 1953.

The Moscow signal, as it came to be called, at first did not cause much concern because it did not appear regularly. But over time it became more nearly constant, so the U.S. State Department shipped monitoring equipment to the embassy. Data collected during the early 1960s left no doubt that the Moscow signal was a carefully manufactured beam of radiation aimed at the U.S. embassy and its personnel.

The signal was in the gigahertz range, it was modulated, and it was of low intensity: 0.1 to 2μW/cm^2 (although it was originally thought to be about a hundred times stronger). Both intensities—the mistaken and the actual values—were well below the IEEE/ANSI C95 value of 10mW/cm^2 established in 1966.

The U.S. State Department and the Central Intelligence Agency (CIA), along with other intelligence agencies, belonged to the U.S. Intelligence Board (USIB), which provided central oversight for all U.S. intelligence activities, both military and civilian. The recommendation of the USIB was two-fold: a survey of the health of U.S. embassy personnel needed to be done, and an investigative study of primates in the laboratory should be helpful in evaluating the effect of this radiation.

Both recommendations were carried out, the health survey disguised as the Moscow Viral Study, and the laboratory study (of chimpanzees) under the name Project Pandora. The health survey concluded that the Moscow signal was not causing any immediate catastrophic health problems in U.S. embassy personnel. But as the complete results have never been made public, the findings remain unknown.

Project Pandora was carried out at the higher level of exposure, and produced results clearly showing an effect on the nervous system. When it was realized, much later, that the U.S. embassy personnel had not been exposed at so high an intensity as was used in the laboratory experiment, it was recognized that this experiment did not, as intended, provide insight into the health effects that could be expected to appear in embassy personnel. But it did demonstrate that adverse health effects could occur below the $10mW/cm^2$ level that was employed as a thermal standard, and that industry has steadfastly insisted was safe!

All of this research was kept a closely guarded secret. Most of the Project Pandora findings did eventually get made public. But there is still information that is classified.

It might be appropriate for the FCC to make requests of the U.S. State Department, and the CIA, and the various branches of the U.S. military, for pertinent information that these agencies may possess that would help the FCC to evaluate the hazard posed by microwave radiation.

The Moscow embassy data is not the only classified information in existence that is relevant to the task before the FCC. In the spring of 1971, an anonymous report was made to the occupational health authorities of the state of Pennsylvania that four cases of brain cancer

had appeared in a short period of time in a population of people working for Philco-Ford in Philadelphia. Here is what was published in ***Electronics*** [vol. 44, August 2, 1971, page 17]:

> A national investigation of the biological effects of low-frequency radiation is getting under way. It was sparked by the concern of engineers over **persistent rumors that brain tumors were caused by exposure to non-ionizing radiation at 20 kilohertz to 10 gigahertz.**
>
> One incident that fueled the spread of rumors is alleged to have occurred several months ago at Philco-Ford in Philadelphia where work was being done on a secret Government project. **A company spokesman has branded as an "out-and-out" hoax any stories connecting the experiments and one death from astrocytoma and another case of brain damage.**

(The emphasis above was in the original.)

Federal and Pennsylvania officials met to plan a national study, to determine whether other cases had occurred elsewhere. The U.S. Bureau of Radiological Health (BRH) said the meeting was triggered by the informal request of three companies for an official statement. An official public report was promised by the BRH, but it was never issued.

Several years ago I contacted all the individuals named, and received confirming information from all except John C. Villforth, who headed the Bureau of Radiological Health at that time. What I learned was that there had been similar problems found at other government contractor sites across the country. A branch of the U.S. military took an interest, and people of successively higher military rank began visiting the investigatory headquarters. Finally, a general came through! And shortly thereafter, the military took over the investigation completely, citing "national security" as the reason!

That was the end of the investigation by the U.S. Public Health Service of this country's first nationwide epidemic of brain cancer. Villforth took care to annihilate the Bureau of Radiological Health, before he retired from government service, by merging it with another

agency to form the National Center for Devices and Radiological Health. It is my personal opinion that he did this to shield agency documents from discovery under the Freedom of Information Act.

So far as I am aware, this is the only time that any investigation of a disease epidemic by the U.S. Public Health Service was ever halted by any other branch of the federal government. Of course, no one knows what happened to this investigation after the military took it over, because they classified everything! But I can say with confidence that the epidemic of brain cancer that I consider to be in its early stages—the one that results from heavy use of handheld cellular telephones—is not the *first* nationwide epidemic of brain cancer resulting from exposure to non-ionizing radiation that this country has experienced, but the *second!*

I cannot be sure which branch of the military accomplished the cover-up. But I urge the FCC to ask the U.S. Air Force for any information it may have relating to a brain cancer epidemic at Government contractor sites in 1971. And since any such reports would be classified, the FCC should request their prompt declassification.

Finally, I want to point out that for a long time, it was believed that only ionizing radiation was hazardous, because ionization was the only mechanism of hazard recognized. It may come as a surprise to the FCC to learn that the physics literature of the past 22 years contains hundreds of scientific papers in which microwave radiation is described as being capable of producing ionization! If the FCC will schedule a public hearing, I shall be glad to discuss the evidence on this point, and explain how microwave radiation, which is considered to lie within the non-ionizing portion of the electromagnetic spectrum, can accomplish the ionization of matter—at least, under special circumstances.

In summary, there is ample evidence of hazard from exposure to microwave and radio-frequency radiation in the scientific literature, if one knows where to look. It is no accident that we are so ignorant of the adverse health effects of this radiation! Its weapons potential was recognized early, and those agencies of government responsible for intelligence and the development of weaponry have worked hard to keep secret the knowledge of how exceedingly hazardous this radiation really is by classifying the relevant documents.

This deliberate concealment of hazard by selected agencies of the federal government, in my judgment, justifies the default assumption that this radiation *is* hazardous, and ought to be proven safe before it is permitted to be deployed as widely as the Telecommunications Act of 1996 mandates.

Majorie Lundquist

CERTIFICATE OF SERVICE

I, Marjorie Ann Lundquist, hereby certify that on this, the 16th day of October, 1996, a copy of my Comments on the Comments of Ameritech Mobile Communications, Inc. on Petitions for Reconsideration were mailed first class, postage prepaid, to the following:

Bert Dumpé
Ergotec Association, Inc.
P. O. Box 9571
Arlington, VA 22219

Arthur Firstenberg, Chairman
Cellular Phone Taskforce
P. O. Box 100404, Vanderveer Station
Brooklyn, NY 11210

David Fichtenberg
Ad-hoc Association of Parties Concerned About the Federal Communications Commission's Radiofrequency Health and Safety Rules
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